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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,731	01/23/2006	Naruhiro Akiyama	123991	7702
25944 7590 12/10/2009 OLIFF & BERRIDGE, PLC P.O. BOX 320850 ALEXANDRIA, VA 22320-4850				
EXAMINER				
KNABLE, GEOFFREY L				
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1791				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/535,731

**Applicant(s)**

AKIYAMA ET AL.

**Examiner**

Geoffrey L. Knable

**Art Unit**

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 9-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/CD)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

1. Claims 18 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

New claims 18 and 20 refer to the "system according to claim 16" but claim 16 is directed to a method.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 9–13 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 448,407 to Yamakawa et al. (newly cited) taken in view of Loeffler et al. (US 4,443,290), WO 00/03867 to Blickwedel et al. (newly cited) and Ogawa et al. (US 2002/0088529 – newly cited).

EP '407 discloses a tire building system including drums that are moved along a path from station to station to effect the required building operations – note esp. fig. 3 and col. 5, lines 27-33 which indicate that all the stages are similarly configured including the green tire building stage where the carcass is toroidally shaped. EP '407 does not however provide specifics of the drums or workstations in the green tire building line or the manner of movement of the drums along the path. It however is known in this art to be suitable and effective to guide a tire building drum along a desired path between stations using a guided carriage movable along the desired conveyor track - Loeffler et al. is exemplary (note also that although only first stage assembly is illustrated, applicability to second stage assembly is also contemplated - col. 4, lines 64+). To use a guided carriage to effect the movement of the drums in EP

'407 along their assembly path would therefore have been obvious and lead to only the expected and predictable results. As to the specifics of the drums and workstations in the green tire building line, although specific application of components in the green tire line is not illustrated in schematic fig. 1 of EP '407, it would have been obvious to apply components to the toroidally shaped carcass on this line in view of WO '867 (equivalent US 6,923,879 will be referenced as an effective translation of this document) and Ogawa et al. In particular, in view of WO '867, it is apparent that the ordinary artisan understands that applying components such as the sidewall after shaping helps avoid additional distortions introduced during the shaping process (e.g. col. 3, lines 5-32 of equivalent US '879). Ogawa similarly teaches desirably applying components to the already toroidally shaped carcass. To configure the EP '407 device to include workstations to mount components on the toroidal carcass would therefore have been obvious and would have been expected to reduce possible distortions introduced during toroidal shaping. Further, locking the bead cores during second stage building is well known, typical and obvious in this art – Ogawa et al. is merely exemplary (e.g. note bead locks "11" in fig. 1 or "33" in figs. 6-8). A tire building system as required by claim 9 would therefore have been obvious. A corresponding method as required by claim 16 would likewise have been obvious, the newly applied secondary references clearly suggesting application of the sidewalls to the toroidally shaped carcass.

As to claim 10, EP '407 suggest cylindrical first stage building along a building path, use of carriages being obvious in view of Loeffler et al. as already noted. As to claims 11-13, the path suggested in fig. 3 of EP '407 is illustrated as endless with

straight parts adjacent respective workstations. As to claims 17-20, the beads are illustrated to be locked symmetrically as typical and obvious in this art to form symmetrical tires.

4. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over EP 448,407 to Yamakawa et al. (newly cited) taken in view of Loeffler et al. (US 4,443,290), WO 00/03867 to Blickwedel et al. (newly cited) and Ogawa et al. (US 2002/0088529 – newly cited) as applied to claim 9 above, and further in view of Oku et al. (US 6,702,912) and Irie (US 6,508,640).

Oku et al. and Irie are applied substantively for the same reasons as set forth in the last office action.

5. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP EP 448,407 to Yamakawa et al. (newly cited) taken in view of Loeffler et al. (US 4,443,290), WO 00/03867 to Blickwedel et al. (newly cited) and Ogawa et al. (US 2002/0088529 – newly cited), Oku et al. (US 6,702,912) and Irie (US 6,508,640) as applied to claims 9/14 above, and further in view of [Mitamura (US 6,196,819) or JP 08-281655 to Irie or JP 2002-337148 to Ito] applied substantively for the same reasons as set forth in the last office action.

6. Applicant cannot rely upon the foreign priority papers to overcome the JP 2002-337148 rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

7. Applicant's arguments have been fully considered and are persuasive, it being agreed upon further review that only the core "2" in JP '529 travels between stations

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and this is without the portions of the drum where the beads were locked. Therefore, the previous rejections have been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the above newly cited art. This rejection was not however necessitated by amendment and therefore the rejection has not been made final

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey L. Knable whose telephone number is 571-272-1220. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Geoffrey L. Knable/  
Primary Examiner, Art Unit 1791

G. Knable  
December 7, 2009